

REMARKS

Claims 1-30 were previously pending in this patent application. Claims 1-30 stand rejected. Claims 1, 3, 5, 7, 8, 11, 13, 14, 15, 18, 21, 23, 25, 27, and 28 are amended herein. No new matter has been added by these amendments. Support for these amendments can be found at least in dependent claims 8, 18, and 28; and on page 10, lines 3-5 of the specification. Further examination and reconsideration in view of the remarks and arguments set forth below is respectfully requested.

35 U.S.C. Section 103(a) Rejections

According to MPEP 2143.01, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)” (emphasis added). Moreover, MPEP 2143.01 also indicates that, “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)” (emphasis added).

Claims 1-8, 10-18, 20-28 and 30

Claims 1-8, 10-18, 20-28 and 30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eschenbach, U.S. Patent No. 6, 324,473 in view of Robbins et al., U.S. Patent Application Publication No. 2002/0198657 A1 (hereinafter Robbins). Applicant has reviewed the cited art and submits that Claims 1-8, 10-18, 20-28 and 30 of the instant application are not rendered obvious by the cited art for at least the following rationale.

Attention is directed to independent Claim 1 which, as presently amended, recites a method for delivering Virtual Reference Station (VRS) data derived by a VRS network processor at a VRS control station for a designated location to a mobile position determination unit with a terrestrial communications link, said method comprising (emphasis added):

creating a data message comprising pseudorange data derived for said designated location and pseudorange corrections for a designated region surrounding said designated location;

sending said data message via a cellular telephone connection from said VRS control station to a moveable Real Time Kinematics (RTK) base station located in the designated region surrounding said designated location; and

transmitting said data message from said moveable RTK base station to a mobile position determination unit using a radio transmitter independent of said cellular telephone connection, wherein said moveable RTK base station may be moved about within said designated region while performing said transmitting of said data message related to said designated location.

Independent Claims 11 and 21 contain similar features to Claim 1 and were rejected with similar rationale. Claims 2-8 and 10 depend from allowable independent Claim 1 and recite further features of Claim 1. Claims 12-18 and 20 depend from allowable independent Claim 11 and recite further features of Claim 11. Claims 22-28 and 30 depend from allowable independent Claim 21 and recite further features of Claim 21.

The Proposed Combination Would

Change the Principle of Operation of Eschenbach

It is respectfully asserted that Eschenbach does not teach, suggest, or otherwise render obvious, “sending said data message via a cellular telephone connection from said VRS control station to a moveable Real Time Kinematics (RTK) base station located in the designated region surrounding said designated location,” (emphasis added) as recited in Claim 1 and similarly in

Claims 11 and 21. Per Applicant's understanding, Eschenbach may teach sending differential global positioning system information to a differential global positioning system (DGPS) reference station (see, e.g., Abstract; Title; col. 2, lines 65-67; col. 3, lines 41-56; and col. 7, lines 21-37 of Eschenbach). However, per Applicants understanding Eschenbach is silent with respect to "sending said data message via a cellular telephone connection from said VRS control station to a moveable Real Time Kinematics (RTK) base station ...," (emphasis added) as recited in Claim 1. Per Applicant's understanding, RTK and DGPS are very different methods for correcting GPS positioning errors. Thus it follows that "sending said data message" to a DGPS reference station as is described in Eschenbach is very different from and actually teaches away from "sending said data message... to a moveable Real Time Kinematics (RTK) base station..." as is recited in Claim 1 and similarly in Claims 11, and 21. As such, Applicant submits that Claims 1, 11, and 21 are neither are not taught, suggested, or otherwise rendered obvious by Eschenbach.

Further, Applicant submits that a *prima facie* case of obvious cannot be made from a combination of Eschenbach and Robbins because the proposed change (see the present Rejection of Claims 8, 18, and 28) would change the principle of operation of Eschenbach. In conjunction with the rejection of Claims 8, 18, and 28, the present Rejection (see page 6 - page 7) has proposed that modifying Eschenbach in view of Robbins renders obvious "sending said data message via a cellular telephone connection from said VRS control station to a moveable Real Time Kinematics (RTK) base station ...," (emphasis added) as is presently recited in Claim 1 and similarly in Claims 11 and 21. However, per Applicant's understanding the proposed modification of Eschenbach in view of Robbins changes the principle of operation of Eschenbach. Per Applicant's understanding, and as described above, the principle of operation

of Eschenbach involves sending differential global positioning system information to a differential global positioning system (DGPS) reference station (see, e.g., Abstract; Title; col. 2, lines 65-67; col. 3, lines 41-56; and col. 7, lines 21-37 of Eschenbach). Per Applicant's understanding, the proposed combination would change this principle of operation by requiring Eschenbach to send corrections to RTK reference stations. This is a significant change, as per Applicant's understanding, the DGPS and RTK corrections are very different and likewise DGPS and RTK base stations operate in a different manner. As such, Applicant submits that Claims 1, 11, and 21 are neither are not taught, suggested, or otherwise rendered obvious by Eschenbach in view of Robbins.

The Proposed Combination Would

Render Eschenbach Unsuitable for its Intended Purpose

Moreover, Applicant submits that a *prima facie* case of obvious cannot be made from a combination of Eschenbach and Robbins because the proposed change (described previously in regard to the rejection of Claims 8, 18, and 28) would also render Eschenbach unsuited for its intended purpose. Namely, as previously indicated, Eschenbach sends DGPS corrections to DGPS reference stations (see, e.g., Abstract; Title; col. 2, lines 65-67; col. 3, lines 41-56; and col. 7, lines 21-37 of Eschenbach). By modifying Eschenbach in view of Robbins in the proposed manner, RTK reference stations would be substituted for the DGPS reference stations of Eschenbach. This would render Eschenbach unsuited for its intended purpose of providing DGPS corrections to DGPS reference stations, as the wrong type of reference stations would be receiving the DGPS corrections. Because Eschenbach would be rendered unsuitable for its intended purpose, Applicant submits that the proposed combination of Eschenbach and Robbins cannot teach or suggest "sending said data message via a cellular telephone connection from said

VRS control station to a moveable Real Time Kinematics (RTK) base station ...,” (emphasis added) as is presently recited in Claim 1 and similarly in Claims 11 and 21. Thus Claims 1, 11, and 21 are neither are not taught, suggested, or otherwise rendered obvious by Eschenbach in view of Robbins.

For at least the reasons described above, Applicant submits that Claims 1, 11, and 21 overcome the rejection under 35 U.S.C. §103(a) and are in condition for allowance. Claims 2-8 and 10 depend from allowable independent Claim 1, Claims 12-18 and 20 depend from allowable independent Claim 11, and Claims 22-28 and 30 depend from allowable independent Claim 21. Hence, it is respectfully submitted that Dependent Claims 2-8, 10, 12-18, 20, 22-28, and 30 are patentable over the combination of Eschenbach in view of Robbins for at least the reasons discussed above and by virtue of their dependence upon allowable base claims.

Claims 9, 19, and 29

Claims 9, 19, and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eschenbach in view of Robbins and further in view of Friedman (WO 01/50151). Applicant has reviewed the cited art and submits that Claims 9, 19, and 29 of the instant application are not rendered obvious by the cited art for at least the following rationale.

Attention is directed to independent Claim 1 (shown above) which recites in part “sending said data message via a cellular telephone connection from said VRS control station to a moveable Real Time Kinematics (RTK) base station ...,” (emphasis added). Similar recitations presently exist in independent Claims 11 and 21, which were rejected with rationale similar to that used in the rejection of Claim 1. Claim 9 depends from allowable independent Claim 1 and

recites further features of Claim 1. Claim 19 depends from allowable independent Claim 11 and recites further features of Claim 11. Claims 29 depends from allowable independent Claim 21 and recites further features of Claim 21.

As described above, Claims 1, 11, and 21 are not rendered obvious by Eschenbach. Additionally, as previously described, Applicant believes that a *prima facie* case of obviousness for Claims 1, 11, and 21 cannot be made by combining Eschenbach in view of Robbins. Applicant submits that the inclusion of Friedman does not cure this deficiency in the *prima facie* case of obviousness as the principle of operation of Eschenbach will still be impermissibly changed by virtue of the proposed combination with Robbins, and moreover, Eschenbach will still be rendered unsuitable for its intended purpose by the proposed combination with Robbins.

Moreover, per Applicant's understanding the location of a "base station" (item 54) taught by Friedman is "previously programmed using a special purpose computer 66 such as a laptop or personal digital assistant" upon installation (emphasis added), see page 14, lines 19-21 of Friedman. Thus, Applicant understands Friedman to teach the previously programmed location of the base station to be a latitude and longitude, or else a unique identification number associated with data in a lookup table such as a street address, floor number, or room number (see e.g., page 14, line 19 - Page 15, line 13 of Friedman). It is this previously programmed location information which would be wirelessly transmitted to a mobile user (see, e.g., page 15, lines 14-20 of Friedman). Applicant asserts that by such teaching, Friedman teaches away from, "transmitting said data message" as recited in Claim 1, or "receiving said data message" as recited in Claim 11, or "sending said data message" as recited in Claim 21, wherein the data message comprises "pseudorange data derived for said designated location and pseudorange

corrections for a designated region surrounding said designated location,” as recited in Claim 1 (and similarly Claims 11 and 21). Therefore, for this additional reason, Applicant respectfully submits that the features recited in Claim 1 (and similarly in Claims 11 and 21) are not rendered *prima facie* obvious by Eschenbach in view of Robbins and in further view of Freidman.

Further, per Applicant’s understanding, the principle of operation of Eschenbach involves sending differential global positioning system information to a differential global positioning system (DGPS) reference station (see, e.g., Abstract; Title; col. 2, lines 65-67; col. 3, lines 41-56; and col. 7, lines 21-37 of Eschenbach). Per Applicant’s understanding, the principle of operation of Robbins involves a distribution system which “comprises delivery media for real-time distribution of DGPS data to mobile users” (emphasis added) see, e.g., paragraph 58 and Figure 1 of Robbins. Applicant asserts modifying the distribution system of either Eschenbach or Robbins to use special purpose computers to install pre-programmed (static) location information would both change the principle of operation of both Robbins and Eschenbach and render both Robbins and Eschenbach inoperable for their respective intended purposes of transmitting DGPS information/data. Therefore, Applicant respectfully asserts that there is no suggestion to modify the teachings of Eschenbach, Robbins, or Eschenbach in view of Robbins in the manner suggested by the Rejection. Therefore, Applicant respectfully submits that a *prima facie* case for obviousness of Claim 1 (and similarly in Claims 11 and 21) cannot be made by modifying Eschenbach in view of Robbins and in further view of Freidman.

As such, Applicant submits that Claims 1, 11, and 21 overcome the rejection under 35 U.S.C. §103(a) and are in condition for allowance. Dependent Claims 9, 19, and 29 depend respectively from Claims 1, 11, and 21 which are believed allowable. Hence, it is respectfully

submitted that dependent Claims 9, 19, and 29 are patentable over the combination of Eschenbach in view of Robbins and further in view of Friedman for at least the reasons discussed above and by virtue of their dependence upon allowable base claims.

CONCLUSION

In light of the above listed remarks, Applicant respectfully requests reconsideration and allowance of pending Claims 1-30


The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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Dated: _____

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